ABSTRACT

The present invention relates to conjugates of synthetic binding units and nucleic acids. The present invention also relates to methods for sorting and immobilizing nucleic acids on support materials using such conjugates by specific molecular addressing of the nucleic acids mediated by the synthetic binding systems. Particularly, the present invention also relates to novel methods of utilizing conjugates of synthetic binding units and nucleic acids to in active electronic array systems to produce novel array constructs from the conjugates, and the use of such constructs in various nucleic acid assay formats. In addition, the present invention relates to various novel forms of such conjugates, improved methods of making solid phase synthesized conjugates, and improved methods of conjugating pre-synthesized synthetic binding units and nucleic acids. The present invention also relates to the use of conjugates of synthetic binding units and nucleic acids as substrates for various enzymatic reactions, including nucleic acid amplification reactions.